

What the invention claimed is:

1. A cooling exchanger comprised of a cooling base plate, two units of water pans and two units of water pumps characterized by that:

Said cooling base plate having two units of contact plates incorporated
5 with multiple units of SbBi crystals and bridged with a conductor;

Outer edges between said two contact plates coated with insulation resin to close and separate a shortage;

Two units of said SbBi crystal containing having opposite polarities connected to a DC source and both contact plates connected to it having
10 relative temperature difference (ΔT);

Said two units of water pans each being a hollow container;

The front of the water pan has a water inlet and a water outlet;

Four corners of the water pan having a protrusion of a bolting hole;

The bolting hole having a locking member to pass through to hold it in
15 position;

Both of said water pans mutually held in position on the contact plate of the cooling base plate;

A pipe each connecting the water inlets and the water outlets from said two units of water pans to form a closed pipeline;

20 Water controlled by a water pump circulating in said closed pipeline; and

The water from the closed pipeline flowing into said two units of water pans and completing heat exchange subject to the temperature difference (ΔT) of the cooling base plate to reduce the temperature of the water circulating in
25 the water pans.